MILK RIVER WATERSHED NEWS

April 2000
VOLUME 3 NUMBER 1

INSIDE

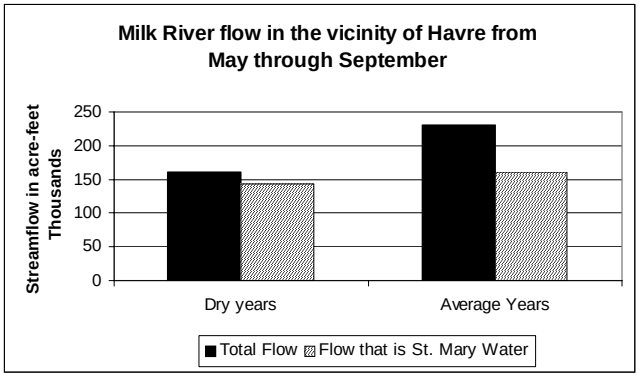
COMING NEXT ISSUE:

Next issue will focus on the Fort Belknap reserved water rights negotiations

Lake Sherburne and St. Mary Canal Help Stabilize Milk River Water Supply

by R. Scott Guenthner, USBR

The mild winter weather could spell trouble for Milk River water users this summer. According to the March 1st water supply forecast issued by the Natural Resources Conservation Service, Milk River flows are expected to be about 51 percent of normal. If this forecast holds true, Fresno and Nelson Reservoirs will not fill and less will be supplied to water users in the basin.



Dry years are years similar to 1983, 1984, and 1992; and average years are years similar to 1982, 1989, 1993, and 1998.

The bright spot is the water supply forecast for the St. Mary River basin. Although the runoff is expected to range from 75 percent to 85 percent of normal, this information needs to be put into perspective. Inflows to Lake Sherburne during the April through July peak runoff period only varies plus or minus 15,000 acre-feet from the forecast amount, in about 90 percent of the years. This variance is low relative to the average inflow to Lake Sherburne of 105,000 acre-feet. Water from the St. Mary River and stored water from Lake Sherburne are diverted every year into the Milk River through the St. Mary Canal. In a normal irrigation season (May through September period) approximately 70 percent of the Milk River flow near Havre originates from the St. Mary River Basin. Lake Sherburne and the St. Mary Canal have been strong stabilizing forces, not only for Milk River irrigators, but also for all other residents that use water in the basin. The importance of Lake Sherburne and the St. Mary Canal becomes even more important during dry years such as this year is shaping up to be. About 90 percent of the water in the Milk River in dry years originates in the St. Mary River Basin. Many water users will remember 1984 as one of the driest years in recent memory when the St. Mary River provided about 95 percent of the water released from Fresno Dam.

Runoff into the Milk River is typical of most prairie streams where the volume of runoff can be extremely high

(See ***Influence*** *on page 2)*

Facts about the Fort Belknap Irrigation District

GENERAL INFORMATION

Total Acres:	*6,671 acres*
Number of Farms:	*75 (Approx.)*
Water Price(s):	*$10.00 per Acre*
Diversion:	*Lohman Dam*
Miles of canals and laterals:	*40 Miles (Approx.)*
Board Members and titles	*Kay Blatter* **President** *Darrel Briese* **Director** *Wallace Elliot* **Director**
Number of employees	*Full Time: 0* *Part Time: 3*

QUESTIONS

Question: How does Fort Belknap Irrigation District charge water users?

Answer: On a per acre basis.

Question: How are district taxes collected?

Answer: With property taxes

Question: What types of crops are grown within the district and approximate percentages for each crop?

Answer: Small grain (30%), Hay (45%), Pasture (25%).

Question: How does the district ensure a fair distribution of water?

Answer: Monitored by a ditch rider.

Question: What is the district's policy when a user is observed wasting water and how is the policy enforced?

Answer: A verbal warning is first given. If it is not followed the water supply is turned off.

Question: What recent improvements (if any) have been made to the district's system?

Answer: Ditch lining, ditch cleaning, land leveling, improved water accounting.

Question: What are Fort Belknap Irrigation District's long-term and short-term goals for the district?

Answer: Obtain additional grants for upgrading facilities.

Lohman Dam

Question: What changes would you like to see in the Milk River Basin over the next ten years?

Answer: Additional water supply developed for the project. ■

Influence

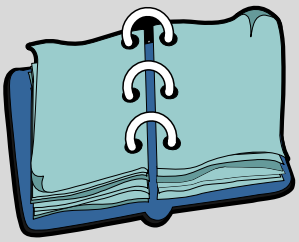
(Continued from page 1)

or extremely low. Normal runoff is a rare event. At times, a late season snowfall can change the expected water supply; hopefully, this will happen this year. But if it doesn't, the St. Mary River will, as in past years, be the more reliable water supply. The figure on page 1 illustrates this point. In normal years, the St. Mary River basin provides about 70 percent of the flows in the Milk River at Havre and in dry years, this figure increases to about 90 percent. ■

Calendar Events

MRIA Advisory Council
will meet on
April 6
from 1:00-4:00 pm
at the NRCS office in
Chinook.

MRIA General Membership meeting
will be held on
Tuesday, May 9
from 10:00-3:00
in the Communtiy
meeting rom of the
First State Bank in Malta.



The Montana Office of the Bureau of Reclamation in Billings pays the cost for printing and mailing this newsletter.

History of Irrigation Development in the Milk River Valley

Part 4

Progress and Opposition

By Manson Bailey

The history of irrigation development in the Milk River Basin and the important roles that various individuals and organizations played is amazing. The stories of these people or "doers" and the services that they provided have been repeated down through the years.

President Theodore Roosevelt's letter to the Reclamation Service that stated "...take immediate action in the whole Milk River matter," which extended presidential authorization in 1905, became a major boost to the valley's irrigation. After Roosevelt's letter, local leaders formed an organization to bring irrigation water to the Milk River Valley. Until recently, I was not aware of the details of this organization. Dick Eaton, a rancher and friend from north of Hinsdale, gave me a small "mouse eaten" notepad which had been kept by an early pioneer of the area, Al Simonson, who spent "40 years of gathering" documents on the history of the basin. His son, Sid, who is my age (80), is still on the ranch northwest of Hinsdale. Al's diary is in his shorthand and longhand and includes records of meetings, names, dates, and actions taken. Of significant interest, are the newspaper clippings pasted in his diary. Here are some of the things I gleaned from them.

After Roosevelt's letter, and at the request of the Federal Government, a local authority was assembled to represent the irrigators and to handle the affairs associated with the project. The group called the "Lower Milk River Water Users Association" (Association), selected H.H. Nelson as its president. As we all know, Roosevelt's approval of a project did not get the project built. The Association had to obtain congressional authorization and funding before the project could be built. At that time, Montana Senators' Carter and Dixon worked closely with the Association and the Secretary of the Interior to obtain the authorization and funding for the project.

In the Valley County News at Glasgow on January 19, 1906, an article is titled: "Bids Wanted for St. Mary Canal—Secretary of the Interior Has Asked For Bids At Once." The paper had received a telegram from Senator Dixon stating that the Secretary of the Interior had been authorized to request bids for construction of the St. Mary's Dam and 23 miles of canal. The sum of $1 million had been set aside for this first section of the project.

Finish grading at Vandalia irrigation ditch with a "tipover fresno."

In our communities along the Milk River, many faithful citizens will come forth to serve in the spirit of progress. But there are also many that will take an opposing view or position to challenge the "doers." The Milk River Irrigation Project was no exception. There was considerable opposition to the proposed project. One of the opposing leaders was State Senator Charles Hurd of Glasgow who had built an irrigation project at his own expense and was pumping water from the Milk. His brother, George Hurd, an attorney and rancher, supported the development of the project.

Another critic was Mr. H.L. Birum--a Saco businessman and farmer. He wrote many editorials in the Valley County News (mostly dated in 1908) about the Milk River Irrigation Project. He was knowledgeable of the Milk River, and the proposed irrigation system, and supported irrigation in the valley. But he sharply criticized how the Association handled the "policies and affairs" of the project. He was especially critical of the Association officers who were responsible for the construction contracts. Mr. Birum's editorials stated that they were receiving cash rather than "script" or written money order as set out in the Reclamation's plan. Another point of contention was the lack of landowner participation in the design and construction of the Irrigation Project. It must have placed doubt in the minds of many within the basin and prospective irrigators. Clearly, Mr. H.L. Birum became a thorn in the side of Association leaders.

It is interesting to note that a number of newspaper editors were not bashful about criticizing some-

(See ***History*** *on page 4)*

History

(Continued from page 3)

one if they felt these people were out of line in attacking the project. One editor used "choice language and characterizations" against the editor of the Malta Enterprise. I will have to omit the details as part of the article was edited or chewed by field mice. One almost unchewed statement was:

"H.L.Birum, of Saco—[chewed word] —took exception to the present manner of handling of the Milk river irrigation project, we have received some censure, but the quarter from which it came makes it unworthy of notice. As to the "wise guy" who runs the Malta Enterprise and the "green monster" he beheld in what we said, because of our refusal to publish the "fatherless" reply to Mr. Birum's article, his time will be well spent on his own paper. For about four years before this gentlemen hit Valley country, we managed to scratch along without his advice as to what should or should not be printed in the columns of the NEWS and we expect still to be the judges."

Another good example of an editor criticizing Birum and Nelson was in the Valley County News of January 15, 1909. The editor noted that H.L. Birum, while in Malta, "experienced conversions, that he had become an enthusiastic member of the Association which is working in the interest of the Project." Clearly some issues had been resolved. The article further stated:

"A divided committee [Association] will not be able to accomplish much for the good of the valley. If H.L. Birum will forget that he is Birum, and H.H. Nelson will forget that he is Nelson, and if Birum will forget that Nelson is Nelson, and Nelson will cease to remember that Birum is Birum, and both get their fertile brains to working for the "good of the order," some results may be hoped for."

The Association name changed to the United Milk River Irrigation Association. As we know, projects do not just happen, they are made to happen and it involves a lot of good people doing by a lot of hard work. I would like to personally pay tribute to all those "doers" down through years that contributed to the success of the Milk River Project.

Did You Know?

Did you know that during the construction of Dodson Dam in 1908. . .

Common laborers were paid $2.00 per day.

Carpenters were paid $2.80 per day.

Blacksmiths were paid $2.80 per day.

A two-horse team with a driver was paid $4.00 per day.

A two-horse team without a driver was paid $2.00 per day.

A two-horse team without a driver, but with government feeding were paid $26.00 per month.

Reclamation To Prepare Regional Feasibility Study

By Lenny Duberstein, Bureau of Reclamation

On December 10, 1999, President Clinton signed the Indian Reserved Water Rights Settlement Act that resolved the water rights claims of the Chippewa Cree Tribe of the Rocky Boy Reservation. The legislation also called for the Bureau of Reclamation (USBR) to conduct ... "a regional feasibility study to evaluate water and related resources in North Central Montana, to determine the limitations of those resources, and how those resources can best be managed and developed to serve the needs of the citizens of Montana." The legislation states that the study shall:

A) evaluate existing and potential water supplies, uses, and management;

B) identify major water-related issues, including environmental, water supply, and economic;

C) evaluate opportunities to solve issues referred to in subparagraph B; and

D) evaluate options for implementing resolutions to the issues.

Water in the Milk River Basin is presently over-appropriated. Irrigators face shortages in six years out of every ten. Along with settlement of the reserved water rights of the Chippewa Cree Tribe, negotiations are now underway to settle claims of the Tribes on the Fort Belknap and Blackfeet reservations. If tribal water rights are settled and fully developed, existing junior water rights and even non-tribal senior water rights holders could be adversely impacted.

Anticipating passage of this legislation, USBR began gearing up for this feasibility study in April 1999. A planning team was created to begin "pre-feasibility" work so that the study could be prepared in a timely manner upon passage of the legislation.

Pre-feasibility work will first identify those parties that would be impacted if tribal water rights are developed and then examine ways to mitigate or minimize those impacts. A full range of structural and non-structural alternatives will be examined. Non-structural alternatives may include: changes to institutional structures; water conservation; improved management; retiring irrigated lands; and water-banking or leasing. Structural alternatives may include: enlarging existing storage facilities; building new storage on tributaries; regulating storage differently within existing delivery systems; rehabilitating and improving existing infrastructure; and importing water into the basin that has been examined

*(See **Feasibility Study** on page 6)*

Study Identifies Ways to Improve On-Farm Irrigation

By John Dalton, NRCS Retired

I want to thank the many irrigators in Blaine, Phillips and Valley Counties who helped me complete the on-farm irrigation efficiency study along the Milk River last summer. A total of fifty irrigators were interviewed and eighty-five different fields analyzed. This study, sponsored by the Bureau of Reclamation and the Montana Department of Natural Resources and Conservation, was designed to determine existing on-farm efficiencies, and then to define reasonable options for conserving irrigation water. With increased competition for limited supplies of Milk River water, the need for better on and off-farm efficiencies is becoming more apparent.

The methodology used was developed by the USDA Natural Resources and Conservation Service (NRCS). It estimates seasonal irrigation efficiency on each field by taking into account on-farm conveyance (ditch) losses, distribution uniformity, other losses, and method of water application. No irrigation system is 100 percent efficient. Irrigation efficiencies along the Milk River are comparable to those found throughout Montana and in much of the West where similar methods are used. Efficiencies are usually higher where water is more expensive and crops have higher values.

The results suggested that average seasonal irrigation efficiency was about 42.9 percent. After discussing potential improvements with irrigators, and analyzing specific field data, irrigation efficiency could be improved to about 62.1 percent—but with a major effort and cost. Such improvement would require changes to both the existing physical system and irrigation management. The cost of these improvements is estimated to be about $14.05 per acre for every one percent increase in efficiency. From a practical standpoint, a realistic goal would be to strive for an overall efficiency of about 12 percent.

Many irrigators would like to improve their systems, but low commodity prices and the lack of capital are major impediments. Physical improvements that were considered in the study include: improving land leveling; installing gated pipe; pumping to gated pipe; installing mainline pipelines; lining ditches; automating surface irrigation; pumping directly from the river; installing pivot sprinklers; improving drains; leveling basin irrigation; and other practices. Additional sources of funding through grants or cost-share programs would be needed to help pay for these improvements.

A much higher degree of management could improve irrigation efficiency. Educational programs and demonstration projects on the installation and use of different types of physical improvements tied with better coordination efforts by districts and agencies would be needed to make this a reality.

A report entitled "Milk River On-Farm Irrigation Study" is available which provides the details of my study. A copy of the report may be obtained by contacting either Brent Esplin of the Bureau of Reclamation in Billings at (406) 247-7489 or Mike Dailey of the Montana Department of Natural Resources and Conservation in Glasgow at (406) 228-2561.

News from the Milk River International Alliance

The Milk River International Alliance is seeking to hire a part-time watershed coordinator. Interested individuals should contact Shannon Sattleen of the Blaine County Conservation District.

Happy Anniversary!

The MRIA recently celebrated its one-year anniversary. Thank you to all of the individuals who have contributed so much time and effort over the last year.

A special thank you to Carol Elliot for baking a beautiful cake to comemorate the event.

Web Sites to Bookmark

The Internet is a huge information bank and finding what you are looking for can be time consuming and frustrating. Provided below is a list of web sites that relate to the Milk River Basin and Montana.

United States Bureau of Reclamation Great Plains Region
www.gp.usbr.gov
This site contains information regarding USBR activities. Click on Water Supply Management to access Agri-met and Hydromet data.

Natural Resource Information System
http://nris.mt.gov
This site contains hundreds of GIS maps that can be downloaded for free. This site also contains information on groundwater programs, the volunteer water monitoring program, and many additional links. More information is available per request, although there may be a fee associated with it.

United States Geological Survey
http://montana.usgs.gov
This site contains current stream conditions, various water use information and water reports.

Montana Online
www.mt.gov
Provides access to information regarding State government, education, employment opportunities, education, and announcements.

Montana Department of Natural Resources and Conservation Home Page
www.dnrc.state.mt.us
Privides Access to various DNRC activities and information including grants and loans, water rights, news and events, and water resource information. The DNRC Water Resources Regional Offices have online computers available for public use.

The Weather Channel Homepage
www.weather.com
Provides the latest weather forecasts for any city including current weather maps.

Happy surfing!

If you have ideas for articles or news items, please contact:

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Feasibility Study
(Continued from page 4)

previously. These alternatives will focus on water supply issues but will take into account changes to water quality, the environment, institutional settings, and economic and social impacts.

In addition, this study will identify and evaluate rural water supply problems facing many small North Central Montana communities. Present and future rural water supply needs will be quantified, potential alternatives to meet these needs will be identified and examined for: 1) water quantity and quality; 2) associated environmental impacts; and 3) social and economic impacts.

By accomplishing the objectives identified above in a timely manner, the pre-feasibility study will serve the following major purposes:

* meet the needs of the parties negotiating Tribal reserved water rights, given the already serious over-appropriation of existing supplies and the potential need for mitigating Tribal water use among non-Indian users;

* provide an independent evaluation of water and related resources in North Central Montana to determine the limitations of these resources and how they can best be managed and developed; and

* initiate federal participation in developing an effective water supply management and enforcement system, given that USBR is already a major player in the area with significant irrigation works.

Another major purpose of the pre-feasibility study is to provide useful and timely information to aid the negotiations of Indian water rights settlements in the study area. To accomplish this, a special report (or at least a final draft report) will be completed by the fall of 2000. The report will be based upon the best available information. It is anticipated that some field data collection will still be ongoing beyond the completion date and that additional information will be identified and addressed in the feasibility study, which will commence upon completion of the pre-feasibility report.

Reclamation employees in Montana are preparing the study with assistance from staff located in Denver. Lenny Duberstein is the Team Leader and can be reached at (406) 247-7707, also at lduberstein@gp.usbr.gov, and at the monthly meetings of the Milk River International Alliance.

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